ABSTRACT

INTRODUCTION

Cardiovascular disease is a major health problem across the world. By the year 2020, Ischemic Heart Disease will be the most common cause of death worldwide. Detection of Coronary artery disease at the ischemic stage helps in preventing the progression of disease. ECG plays an important role in the diagnosis of AMI. But 10 to 20% of ECG shows normal findings in CAD. In these cases, cardiac markers help in the diagnosis.Troponin and CK-MB are currently used biomarkers for diagnosing cardio myocyte injury. But these markers tend to elevate after 6 hours of cardiac injury. Heart Type Fatty Acid Binding Protein (HFABP) is abundant in myocardium and rapidly released from cardiomyocytes into blood. It appears in plasma within 2 hours of cardiac damage. Because of its low molecular weight, relative tissue specificity and high myocardial content, this marker is released earlier than other markers.

AIM & OBJECTIVES:

The aim of our study is to estimate the level of HFABP in CAD patients and its correlation with CK-MB and Lipid profile.

METHODS

After getting approval from the Institutional Ethical Committee, this study was conducted at K.A.P.V. Govt. Medical College and MGMGH, Tiruchirappalli during the period of June 2015 to June 2016. This age matched cross sectional study included 90 subjects. Study group included 45 patientsadmitted in ICCU within 6 hours of

onset of chest pain and diagnosed to have coronary artery disease and 45 healthy individuals as controls.HFABP was estimated by ELISA method. CK-MB was done by immune inhibition method. Total cholesterol and TGL were estimated by enzymatic methods. HDL was estimated by selective inhibition method (Direct method).

RESULTS

The Mean value of HFABP in study and control groups were 35.811 ± 19.2871 and 2.787 ± 1.4556 and the p value was 0.000 (<0.05), which was statistically significant. When compared to CK-MB, HFABP showed 76.5% detection in first 3 hours where as CK-MB had only 58.8%. There was also a positive correlation found between HFABP with CK-MB and duration.

CONCLUSION

In this study, elevated HFABP in the early hours (0 to 3 hours) of onset of ischemic chest pain clearly shows that serum HFABP can be used as an early marker in the diagnosis of coronary artery disease and plays a major role in the management of CAD.

Key words – Ischemic heart disease, CAD, HFABP, CK-MB, Lipid profile